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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/585,553	06/02/2000	Shuji Ono	3562-0102P	5106
7590 08/28/2006			EXAMINER	
Birch Stewart Kolasch and Birch LLP			TRAN, NHAN T	
P O Box 747			ART UNIT	
Falls Church, VA 22040-0747			PAPER NUMBER	
			2622	

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/585,553

Applicant(s)

ONO, SHUJI

Examiner

Nhan T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
4a) Of the above claim(s) 6-15, 17-19 and 21 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3, 16, 20 and 22-24 is/are rejected.
7) ☒ Claim(s) 4 and 5 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-3, 16, 20, 22-24 have been considered but are moot in view of the new ground of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 16, 20, 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onuki (US 6,377,305 B2) in view of Sawabe et al. (US 4,908,648).

Regarding claim 1, Onuki discloses an image processing apparatus for processing an image (a final image or a refined image) obtained by photographing a subject (see Fig. 36), comprising:

an image data unit (901; Fig. 36) for capturing a first image (image IM1 captured by image sensor 111) and a second image (a parallax image comprising IM2 + IM3 captured by image sensor 924) of the subject, said second image being captured in a parallax manner (see Fig. 36; col. 34, lines 24-49), wherein the image data unit includes a parallax image data input unit (921; Fig. 36), wherein the parallax image

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data input unit inputs a parallax image (the parallax image comprising IM2 + IM3) which is photographed from different viewpoints (different optical system as shown in Fig. 36; see col. 34, lines 32-49);

an extractor (microcomputer 931) for extracting image information relating to conditions (i.e., brightness conditions; col. 36, lines 1-9) of the image only from said first image and depth information (i.e., distance information to the subject) only from said second image (col. 34, line 32 – col. 35, line 10);

a condition-determining unit (microcomputer 931) for determining a process condition (i.e., bringing the main image IM1 into focus from an out-of-focus image) of said first image (IM1) based on said depth information (see Figs. 36-39; col. 36, lines 29-31).

Although Onuki discloses calculation of depth information (distance information) to the subject using the second image, Onuki does not clearly disclose that the depth information indicates a distance between a point to another point on the subject. In Sawabe's reference, a distance measuring device for an imaging apparatus is taught. Sawabe teaches a distance (l1) from one point to another point on a subject (a person's face shown in Fig. 13) being extracted as depth information to widen the range of measurable distance from a camera to the subject in a normal focusing mode as well as in a short focal length mode wherein the object is positioned in the vicinity of the camera (see Sawabe, Figs. 6 & 13; col. 22-54 and col. 2, lines 23-30).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the apparatus in Onuki in view of the teaching of Sawabe such that the extractor would

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extract depth information indicating a distance between a point to another point on the subject from the second image so as to widen the range of measurable distance from a camera to the subject in a normal focusing mode as well as in a short focal length mode wherein the object is positioned in the vicinity of the camera as suggested by Sawabe.

Regarding claim 2, Onuki also discloses an image processing unit (also, microcomputer 931; Fig. 36) for processing said image (the final image or refined image) based on said condition (see Fig. 39, col. 35, lines 52-55 and col. 36, lines 49-53, wherein the final image is processed as an in-focus image for recording and displaying at steps S833-S835).

Regarding claim 3, it is clear in Onuki that the extractor extracts said depth information based on the parallax image obtained by photographing said object from different viewpoints (see Fig. 36).

Regarding claim 16, this method claim is also met by the analysis of apparatus claim 1.

Regarding claim 20, the combination of Onuki and Sawabe discloses all limitations as analyzed in claim 1. Note that the processing steps shown in Fig. 39 of Onuki is performed by the microcomputer 931 by executing a program stored in an inherent memory of the camera (see Onuki, col. 35, lines 52-55).

Regarding claims 22-24, Onuki also discloses that the determined process condition is at least one of a color condition, compression condition (see Onuki, col. 36, lines 49-52; col. 33, lines 54-57 and col. 25, lines 53-60).

Allowable Subject Matter

3. Claims 4 & 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 4, the prior art of record fails to teach or fairly suggest "said extractor extracts data of an aimed object from said image based on said depth information, and said condition-determining unit determines said condition for processing said image based on information including said data of said aimed object."

Regarding claim 5, this claim is directly dependent from claim 4.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The examiner can normally be reached on Monday - Friday, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NT.

A handwritten signature in black ink, appearing to read 'D. Ometz', with a long horizontal line extending to the right.

DAVID OMETZ
SUPERVISORY PATENT EXAMINER